



City of Austin Municipal Water Supply Overview



Colorado & Lavaca Rivers and Matagorda & Lavaca Bays
Basin and Bay Area Stakeholder Committee Meeting
October 28, 2010

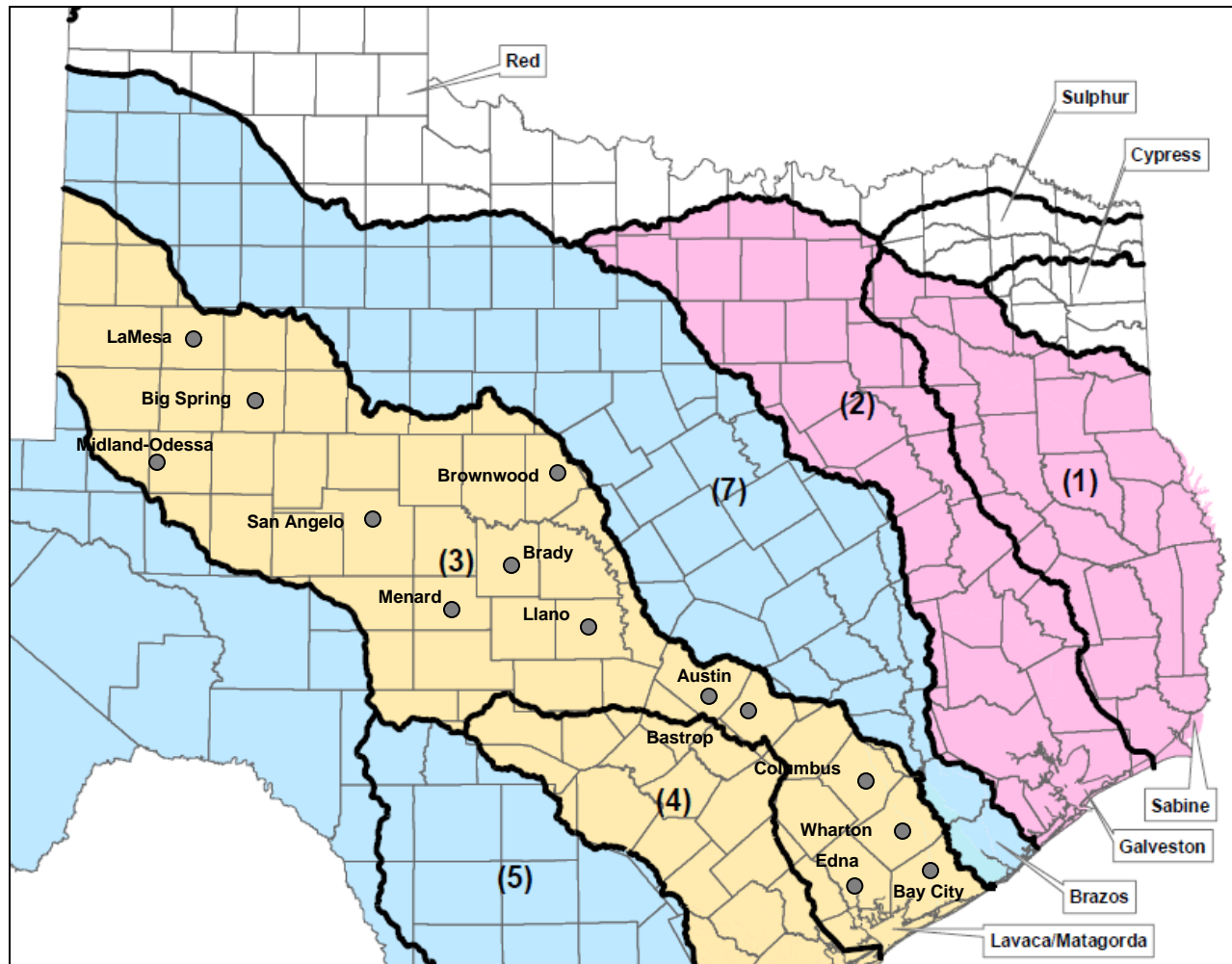


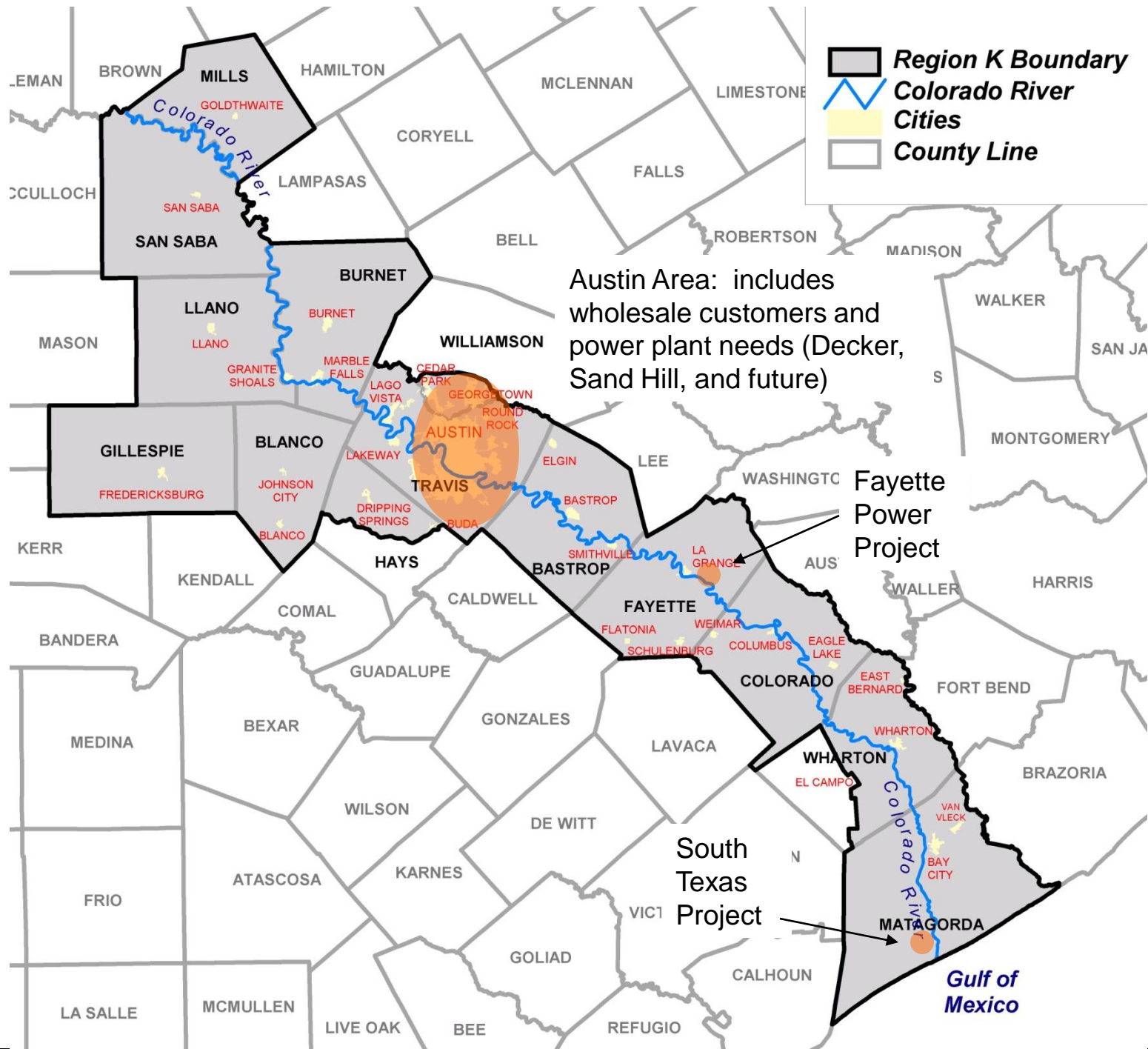
Outline

- ▶ **Overview**
- ▶ **City of Austin**
 - **Water Supplies and Demand**
 - **Major System Components**
 - **Water Conservation and Reclaimed Water**
- ▶ **Key Water Supply Points**



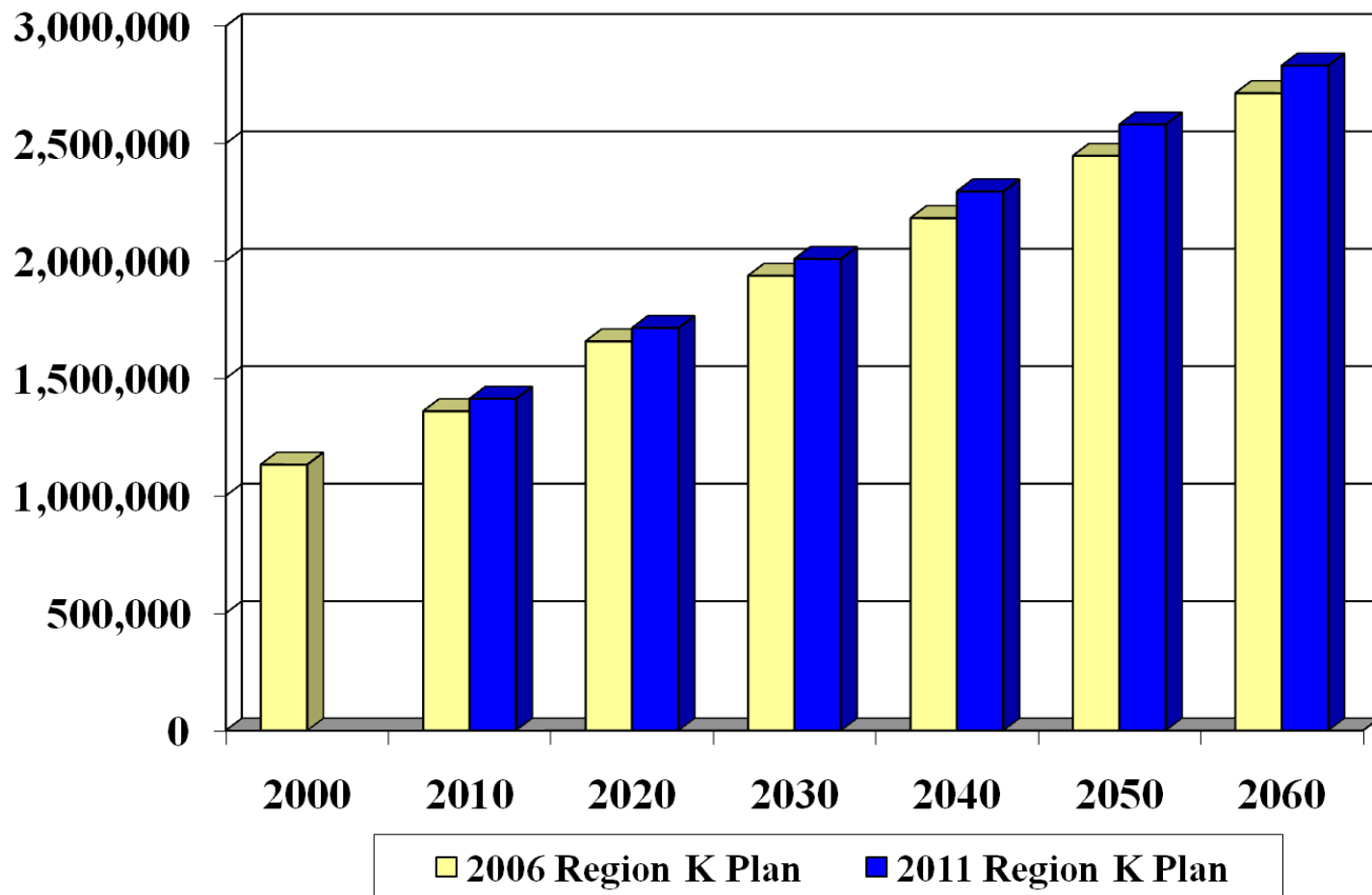
Colorado & Lavaca Rivers and Matagorda & Lavaca Bays Basin and Bay Area





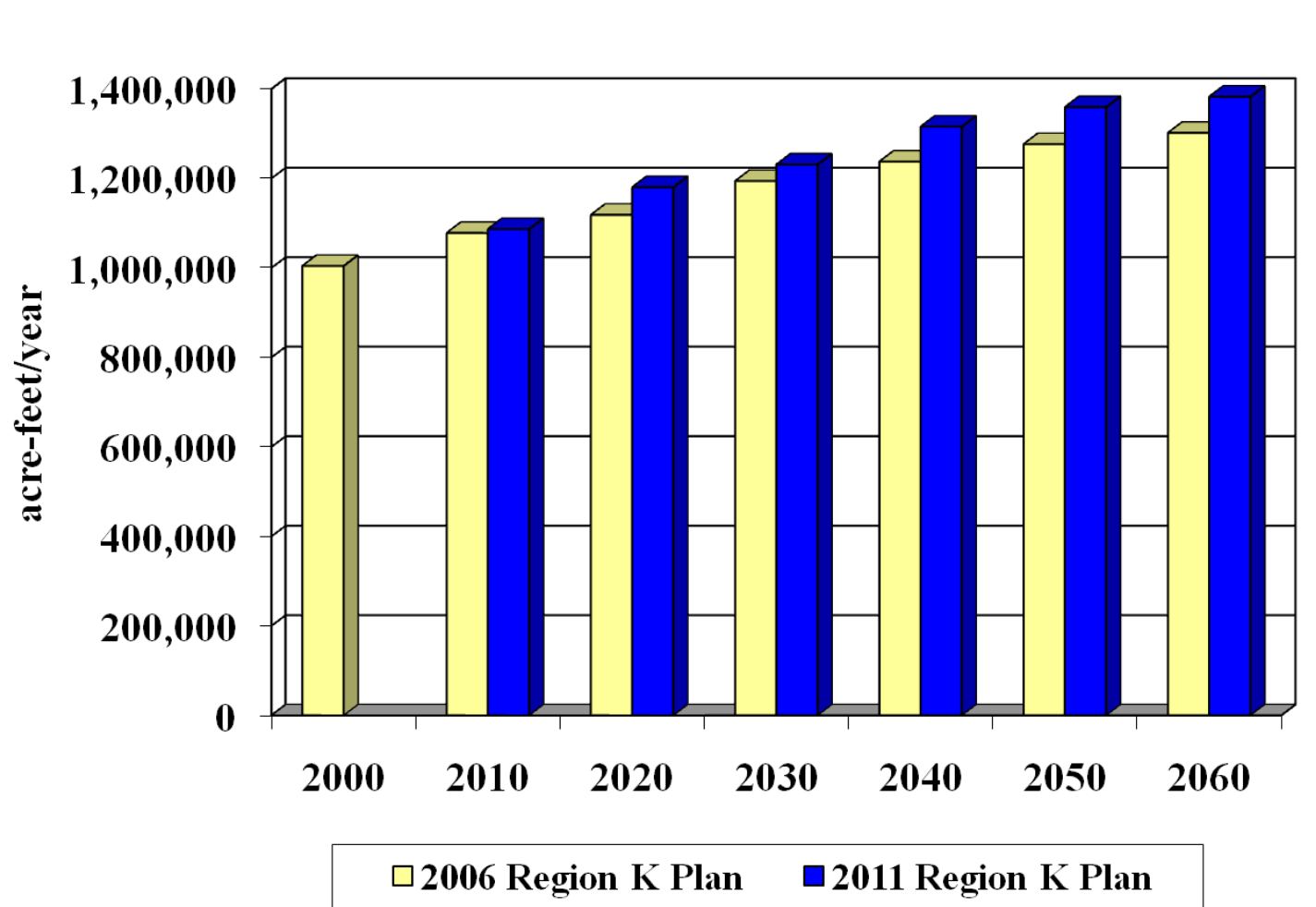


Region K Population Projections



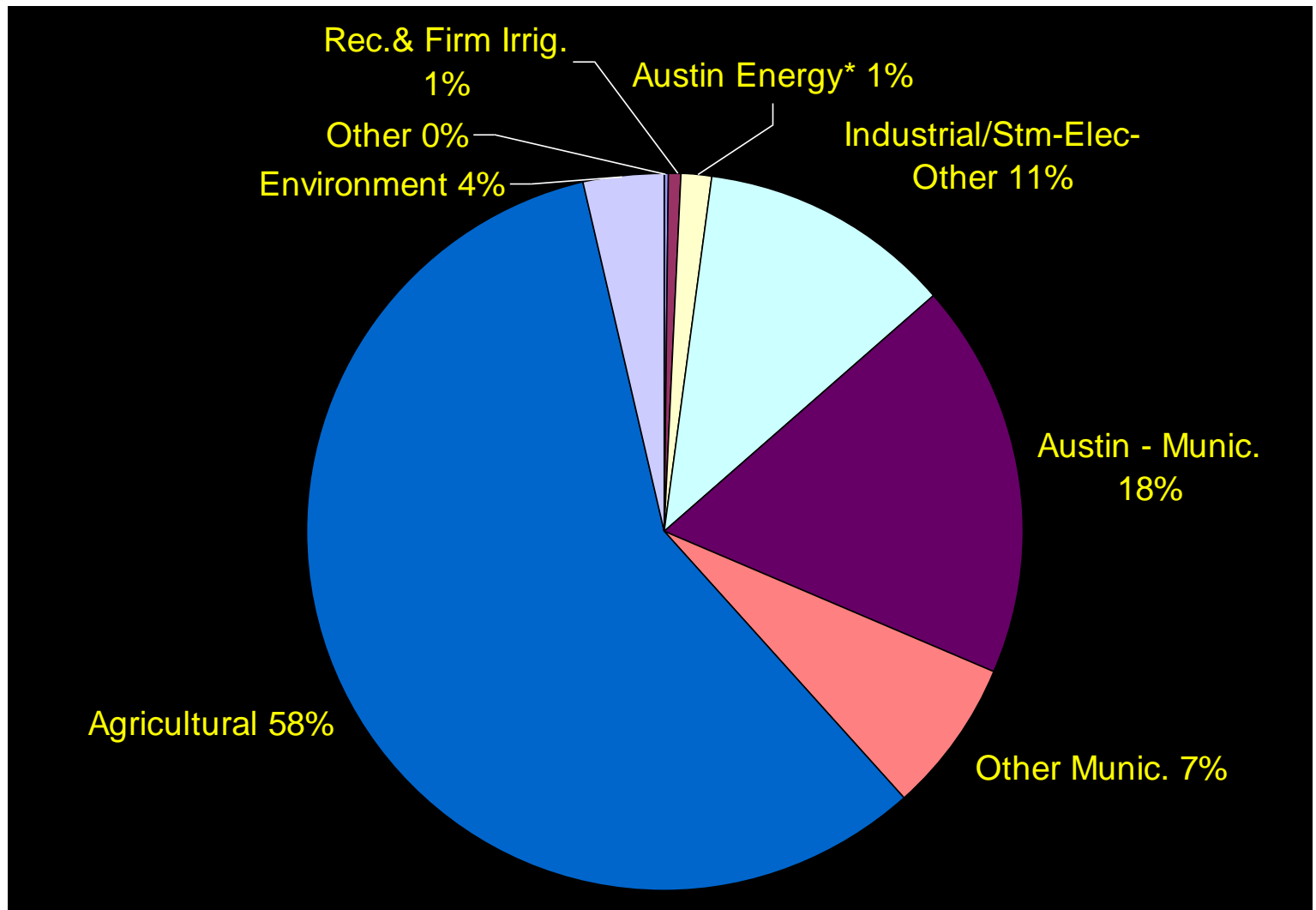


Region K Total Water Demand Projections





2009 Total Lower Colorado River Water Use





Austin Water Service Area

- ▶ City of Austin Water served population
 - Current: 890,000
 - 2060 Projected: 2 million
- ▶ Current City limits land area = 289 square miles
- ▶ Utility service area = 538 square miles
- ▶ Retail and wholesale, inside and outside City limits
- ▶ Wholesale service includes Municipal Utility Districts, cities, and private companies
- ▶ Major demand categories:
 - Municipal and manufacturing
 - Steam-Electric



City of Austin Water Supply

- ▶ **Current municipal supply:**
 - Colorado River (surface water)
- ▶ **Supply comes from a combination of:**
 - State-granted water rights (run-of-river)
 - Water supply contracts with LCRA (providing firm back-up to ROR rights)
- ▶ **Demand management/supply:**
 - Water Conservation
 - Water reclamation program – direct reuse



Recent Water Contracts

▶ 1999 Agreement

- Firm back-up for Austin's senior run-of-river rights and additional firm water totaling 325,000 AF/yr
- Term extends through year 2050 with option for Austin to extend to year 2100

▶ 2007 Supplemental Water Supply Agreement (SWSA)

- Provides up to 250,000 AF/yr of additional supply through the year 2100 to be jointly planned, incrementally



Austin Municipal Demands

- ▶ **AWU Demand for Municipal Needs**
 - FY 08/09: 163,668 AF/yr (146 MGD)
 - Highest fiscal year: 173,707 AF/yr (FY 05/06)
 - Most recent 5-year average: 159,730 AF/yr

Fiscal Year	Demand (AF/yr)
04/05	157,661
05/06	173,707
06/07	140,763
07/08	162,853
08/09	163,668

1 acre-ft is 325,851 gallons



Austin Water System at a Glance

- ▶ **Treatment: 285 MGD**
 - Ullrich: 167 MGD
 - Davis: 118 MGD
- ▶ **Peak day pumpage:**
 - Year 2009 Peaks:
 - 239.7 MGD (July 16, 2009) and 222.6 MGD (July 17, 2009) – period of operation associated with a tank inspection
 - 221.9 MGD (August 7, 2009)
 - Historic Peak:
 - 247 MGD (September 26, 2005)
- ▶ **Annual production: 53 billion gallons**
- ▶ **System Storage (Total): 167 million gallons**
- ▶ **Distribution:**
 - 9 major pressure zones
 - 35 pump stations, 34 reservoirs
 - 3,600 miles of pipe, 25,000 public hydrants



Austin Wastewater System at a Glance

▶ Treatment: 150 MGD

- South Austin Regional: 75 MGD
- Walnut Creek WWTP: 75 MGD

▶ Recent Combined Annual Average:

- FY 08/09: 82 MGD
- FY 07/08: 83 MGD
- FY 06/07: 98 MGD

▶ Collection and small plants:

- 124 lift stations
- 2,600 miles of pipe, 46,700 manholes
- 7 small plants, also participant with Round Rock, Cedar Park, and Leander in Brushy Creek Regional WWTP system operated by the Brazos River Authority



Wastewater Effluent

- ▶ Recent 5-year average combined effluent discharge: 95,386 AF/yr (85 MGD)

Fiscal Year	Combined Treated Effluent (AF/yr)
04/05	95,701
05/06	87,153
06/07	109,323
07/08	92,860
08/09	91,894



Conservation & Drought Contingency Plans



Conservation

- Implementing aggressive conservation program
- 2 day per week watering restrictions in effect:
 - Residential: May to September
 - Commercial: year-round
- In August 2009 City of Austin went into Stage 2 watering restrictions: limited to 1 day per week
 - Resulted in significant revenue loss
- Aggressive leak detection repair program and main replacement
- Evaluating potential for lowering municipal use per capita to a goal of 140 gpcd by 2020
- Stage 3 – no outdoor watering*



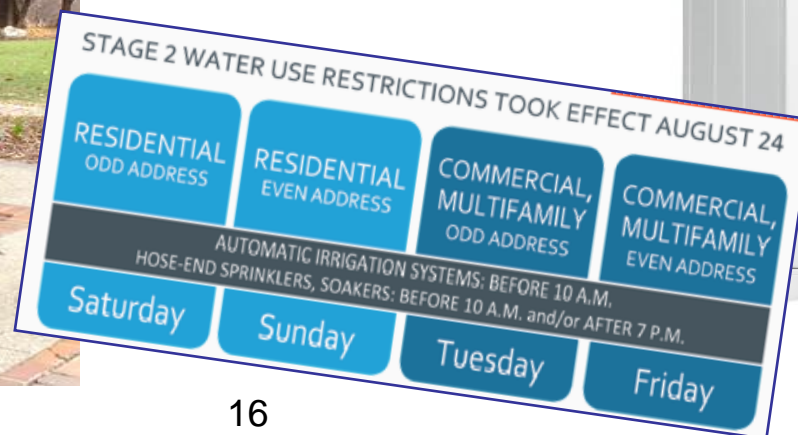
City of Austin Drought Contingency Plan - supply triggers for watering restrictions with implementation to be determined by the City Manager:

- Combined storage level in Highland Lakes
- 900,000 acre-feet trigger Stage 2
- 681,000 acre-feet trigger Stage 3



Water Conservation - Programs

- ▶ Toilet, Washing Machine, Pressure Valve and Rainwater Harvesting Rebates
- ▶ Free Irrigation Audits
- ▶ Mandatory Watering Restrictions
- ▶ Education, Outreach, Speakers Bureau

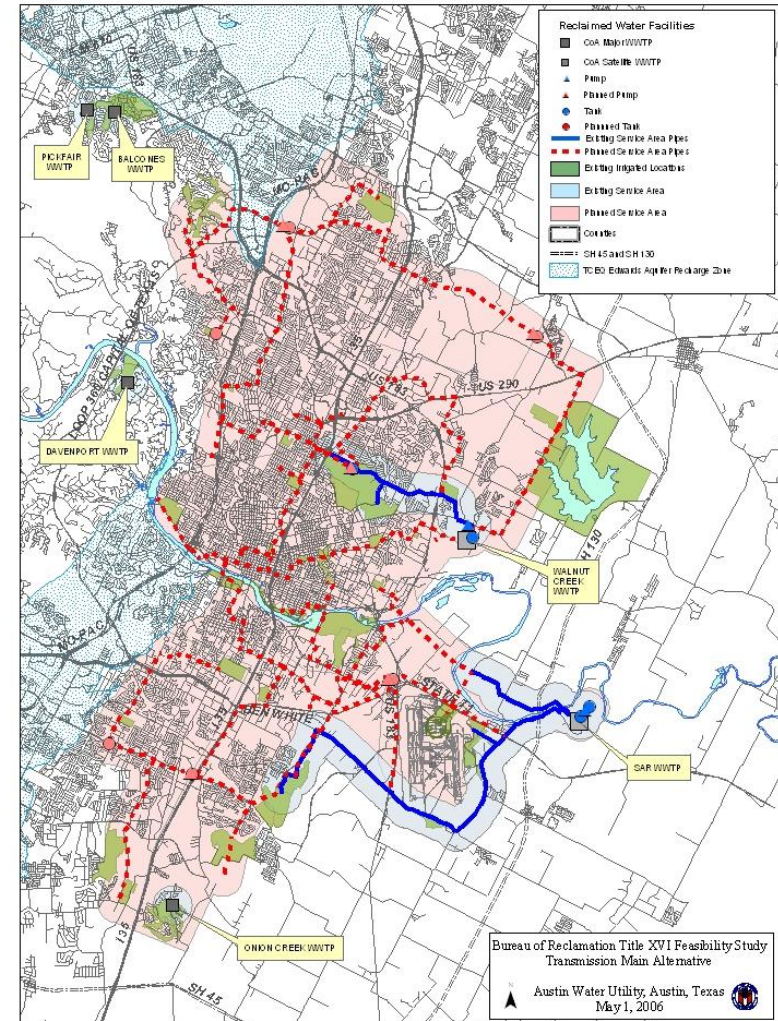




Water Reclamation

The Current System

- Highly treated wastewater effluent
- Major uses:
 - Irrigation
 - Cooling
 - Manufacturing
 - Industrial
- Recent annual use:
6,100 acre-feet/year





Water Reclamation Initiative

- ▶ Direct reuse system - “third utility”
- ▶ Targeting expansion of the system in high use areas (University of Texas for example).
- ▶ Long-range system plan over 130 miles of pipe, 7 tanks and 10 billion gallons of annual use (~30,000 ac-ft/yr)





Overview of Key Water Supply Points

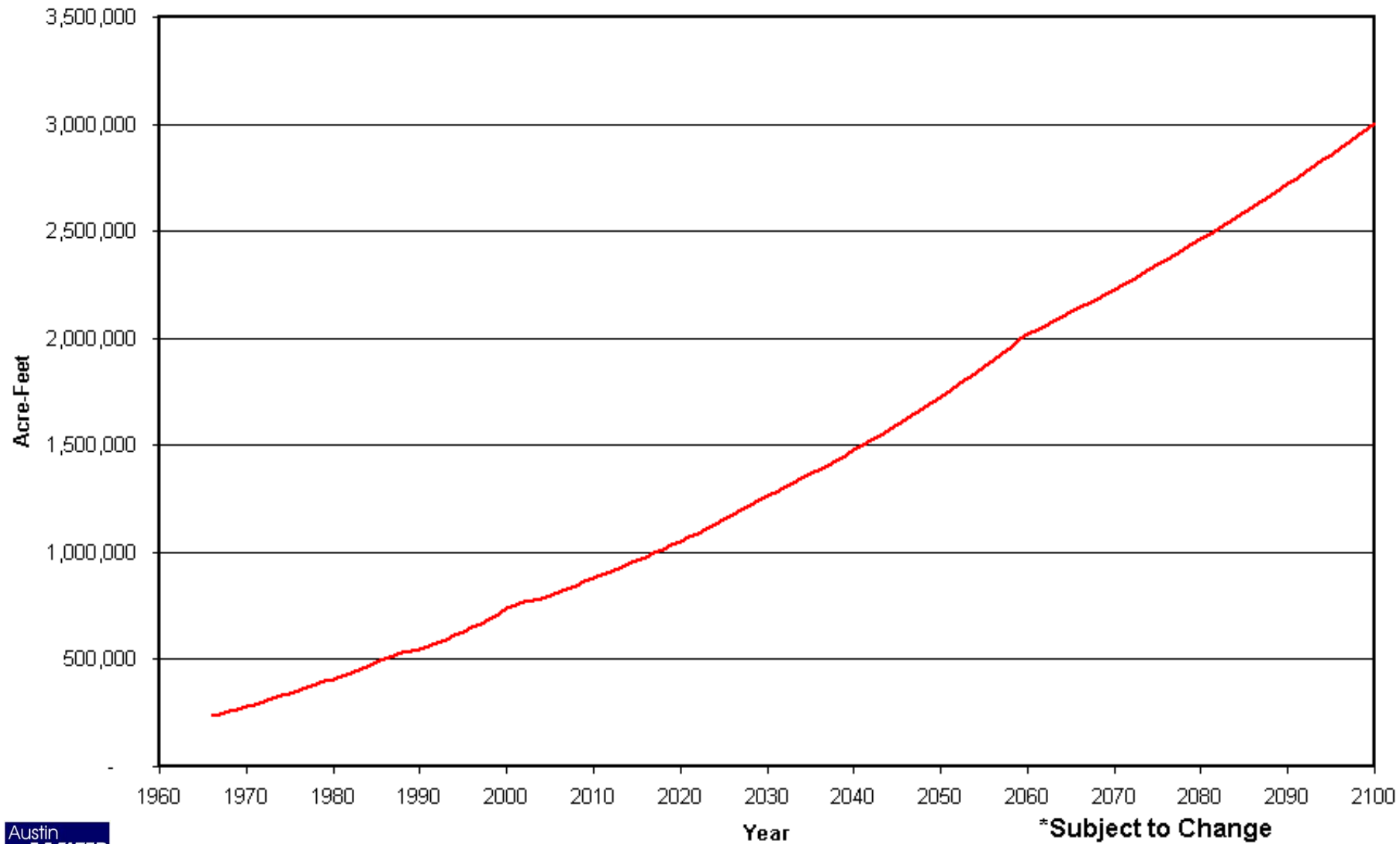
- ▶ Firm water supplies
 - ▶ Long-term certainty and supply reliability
 - ▶ Supply availability through a wide-range of conditions including a repeat of the drought of record
- ▶ Water supply stewardship:
 - ▶ Resource use efficiency:
 - Water conservation programs
 - Leak reduction
 - Reclaimed water program
- ▶ Affordability: water supply at a reasonable cost
- ▶ Water quality protection and consistency
- ▶ Infrastructure investment – asset management:
 - ▶ Capital Improvements Program (CIP) funding for system improvements to serve growth and replace aging infrastructure



Questions?

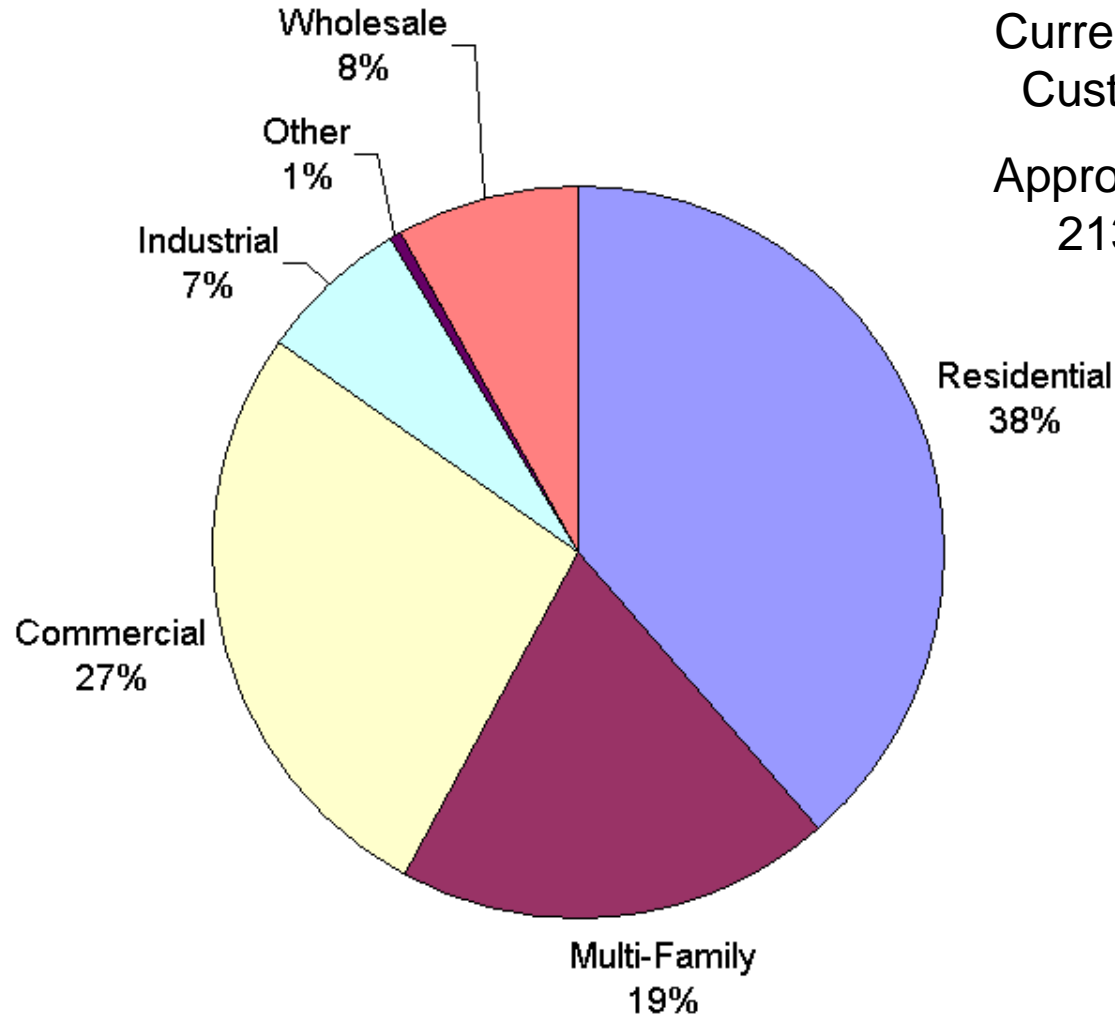


Served Population Estimates and Future Projection*





Typical City of Austin Water Consumption Per Customer Class



Current Water
Customers:
Approximately
213,000